

# RAND Research Brief

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## The Montgomery G.I. Bill Assessing Proposed Changes

Military recruiting faces a new generation of challenges. Some services are even missing their recruiting targets—an event that can have major implications for military readiness and cost—for the first time in nearly two decades.

Many argue that increasing the educational benefits attached to military service is an important part of the solution to recent recruiting problems. Such benefits have long been used to attract youth to the military. And potential recruits are growing more interested in attending college even while college costs are skyrocketing. Yet the military's most widely used education program, established by the Montgomery GI Bill, has not kept pace. Concerns about this program's adequacy were raised by the Congressional Commission on Servicemembers and Veterans Transition Assistance in the January 1999 "Principi Report." The Principi Report recommended providing GI Bill benefits that covered most of the costs of post-secondary education.

Faced with recruiting and retention problems, Congress introduced four different bills in early 1999 seeking to enhance the Montgomery GI Bill program. To help inform this policy debate, researchers from RAND's National Defense Research Institute analyzed key features of these bills—features that may appear in future proposals as well—to assess their likely impact. The researchers found that while most proposed changes would improve overall recruiting, some could actually *create* a recruiting problem by reducing the military's ability to channel high-quality recruits to hard-to-fill skill areas. The total cost of the proposals is likely to be much higher than for the current program, even where the increase in benefits seems modest. The proposals eliminate a current requirement that service members contribute to the benefit, which offsets the total cost. Keeping the member contribution would reduce the cost of improving benefits. Expanding and refining programs that allow recruits to attend college before enlisting also presents a viable option. At their best,

such "college-first" programs can improve recruiting, retention, and productivity in the enlisted force. The Army has just announced a major test of the college-first option, and the Navy has been developing its own college-first program, called Navy "Tech-Prep."

### THE ROLE OF EDUCATION

College education is clearly important to potential recruits. High school graduates are enrolling in college at record rates. In 1975, only 51 percent of recent high school graduates entered college within a year of graduation; by 1997, that figure had grown to 67 percent.<sup>1</sup> This long-term trend creates a strategic problem for recruiting: the military's traditional target group—individuals not planning to attend college right after high school—is not growing nearly as fast as the group that goes to college right away. College appears to be important not only to potential recruits, but to those who actually join a service: Over 90 percent of those who enter the military now enroll in the Montgomery GI Bill program—even though it requires them to contribute \$100 per month during their first year of active service.

While interest in college has been growing, real college costs have grown as well. Between 1985 and 1999, average real tuition at a four-year public college grew by 65 percent; private-college tuition increased by 66 percent. The maximum award under the Montgomery GI Bill, in contrast, increased only 16 percent. This discrepancy between the growth of tuition costs and Montgomery GI Bill benefits has created concern among policymakers

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<sup>1</sup>College enrollments are up partly because the dollar value of a college degree is rising. In 1979, college graduates made, on average, 40 percent more than high-school graduates; by 1997, they made 67 percent more. These cost comparisons, like all others in the report, use inflation-adjusted dollars.

about the adequacy of the benefit for veterans and its ability to attract recruits.

To assess the likely costs and benefits of changes in the program, the NDRI team drew on RAND's years of experience analyzing military recruiting and retention issues, including several recent studies. The team analyzed the long-term effects of four specific changes:

- increasing the monthly benefit
- offering a stipend
- covering tuition costs
- eliminating the member contribution.

Each of these changes was included in at least one of the bills being considered by Congress in the summer of 1999, and all are frequently suggested as ways to improve the Montgomery GI Bill program.

## HOW BENEFITS COMPARE

The Montgomery GI Bill currently provides a maximum monthly benefit of \$528 for up to 36 months. For comparison, the typical National Merit Scholarship is much less (\$55 per month—although Merit Scholars often receive related funding from other sources); average federal financial aid from all sources, including Pell Grants and Stafford Student Loans, is roughly 20 percent more (\$637 per month); and the average Army ROTC scholarship and stipend is over twice as much (about \$1,100 per month).

Initiatives to reform the program vary widely in the benefits they would offer. The two Senate proposals analyzed, S-1059 and S-1076, increase the benefit to \$600 per month—slightly less than average federal financial aid from all sources, and enough to cover most public-school costs in about half the states. HR-1071 would offer some recipients \$900 per month (the "basic benefit") while providing most users with 100 percent of tuition costs as well as an \$800 per month stipend (the "enhanced benefit").<sup>2</sup> Likewise, HR-1182 provides a basic benefit (identical to the current benefit) for some users and, for most, an enhanced benefit: 90 percent of tuition costs along with a \$600 per month stipend. All these analyzed proposals would eliminate the \$100 per month member contribution.

In general, the current program benefits more than cover average public-school tuition costs in most states. The benefit levels proposed in the two Senate bills would increase the dollar amount, but not by enough to fully cover, for example, living costs as well as tuition in most

states. Benefits at the level defined by either House proposal would cover most of the cost of public school (including room and board) in most states. And the two House proposals that define benefits as a percentage of tuition would cover essentially all (90 or 100 percent) of tuition costs even at private colleges—typically more than double public-school tuition—along with a substantial stipend toward living costs.

## EFFECTS ON THE FORCE

Analysis of the military's experience in past recruiting programs and experiments suggests that the broad effects of most reform proposals are similar; under any of the four specific proposals somewhat more high-quality recruits would enlist and fewer would leave before completing their first term—but fewer would reenlist. For each change, positive or negative, the proposals that increase benefits the most would have the greatest impact. The largest change is in accessions (the number of potential recruits who enlist and actually begin their terms of service). Recent research indicates that, in general, a 1-percent increase in educational benefits results in a .20-percent increase in high-quality accessions. Using this ratio, the improvement in accessions would range from quite modest, under proposals such as the Senate bills, to as much as a 34-percent increase under the enhanced House proposals. The evidence also suggests that such proposals would produce a slight fall in first-term attrition, because service members do not receive program benefits if they leave before the end of their obligation. The proposals would also reduce reenlistment rates somewhat, because individuals cannot use the full benefit until they separate from active duty. Finally, the evidence suggests that not only would the usage rate rise substantially, even under the more modest Senate bills, but the dollar amount of the benefit that is used would rise as well.

One proposed program feature, however, could also create recruiting problems. Some proposals, such as HR-1071, would eliminate the College Fund program. This program is one of the key ways the services channel high-quality recruits into hard-to-fill and critical occupational specialties. Eliminating it would force the services to find other ways to fill these positions. One natural alternative is tying enlistment bonuses to critical occupational areas. But RAND studies during the 1980s showed that this strategy could be quite costly. Eliminating the College Fund program could also hurt recruiting in some services more than others. In the early 1980s, DoD conducted recruiting experiments on a national scale that simulated eliminating the College Fund. In that case, the services that had used the College Fund the most saw their recruiting problems grow worse, while those that had used the fund less actually gained recruits. Although enlistment experience from nearly two decades ago may not be directly relevant

<sup>2</sup>Of the specific proposals analyzed, HR-1071 is closest to the recommendations of the Principi Report.

today, the same kind of recruiting problems might well occur under proposals that eliminate this fund; if so, it would adversely affect both the Army and the Navy, which use the College Fund extensively.

## COSTLY CHANGES

RAND's economic simulations indicate that the proposed changes would increase program cost because they increase the monthly benefit. The overall change in program cost, however, can be surprising on at least two levels. First, the increase in program costs is generally far higher than the difference in monthly benefit alone might indicate, because changes in the benefit structure cause changes in the way those benefits are used and because the proposals eliminate the requirement that service members contribute to the benefit. Second, the most expensive proposed program (in terms of total costs) is actually the least expensive per additional recruit. However, relative to other recruiting resources available to the services to improve recruiting, such as advertising and recruiters, all of the proposals considered here are far more costly for each additional recruit.

To explore the effects of specific proposals, the research simulated effects on behavior and cost for a model cohort of enlistees. (Under the current program, the cohort would number 100 enlistees. Since the various proposals, by design, increase enlistments, the equivalent cohort would be larger under each of the proposed programs.) The analysis then used the estimated effects on attrition, retention, and usage to simulate how these rates would change under each of the programs, and ultimately to calculate both the total cost of each proposal and the additional cost per additional recruit.

Under the current program, the 100-enlistee cohort is estimated to generate a total program cost of \$76,400. Maximum benefits under the current program are, of course, more. But only 16 percent of those who enlist actually are estimated to draw benefits under the program after a four-year enlistment term. In addition, part of each student's benefit is offset by the \$100-per-month contribution paid in by all who enrolled in the program and completed their first enlistment term of service. In this exercise, the analysts performed the calculation using two academic years of full-time benefits, out of four possible. Under the Senate proposals, enlistments are estimated to rise by about 3 percent—making the simulated cohort 103, not 100—and attrition is estimated to fall by 1 percent. Reenlistments are estimated to fall slightly, producing a larger pool of potential program users, and usage rates would rise. In all, roughly 25 percent more veterans would draw the now-higher benefits, with no member contributions to offset costs. The result was a three-fold cost increase, to \$228,800 for the simulated cohort.

Similar changes would take place under the other programs, with even greater cost effects. For example, past DoD experience suggests that when benefits are defined as a percentage of tuition, rather than a dollar amount—as they are in the enhanced House programs—45 percent more students enroll in private schools. The net results are shown in Figure 1: total costs for the model cohort vary from \$76,400 under the current bill to \$869,500 under the enhanced version of HR-1071. Two caveats: First, these estimates assume that, no matter how generous the program's benefits, veterans do not attend more-expensive institutions, on average, than do U.S. students in general. So, the cost of the programs could be greater than estimated here. On the other hand, if education benefits increase enlisted supply enough to meet requirements, the services might be able to reduce their use of comparatively more expensive recruiting policies such as enlistment bonuses. This could reduce the cost of the programs to below these estimates.

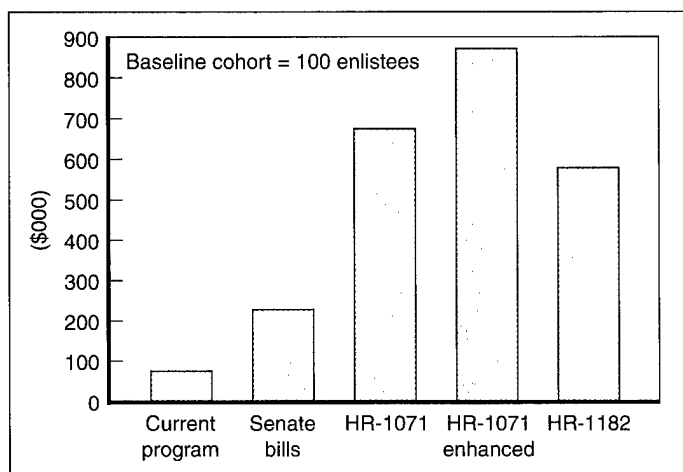


Figure 1—Cohort Cost

Because each program produces different effects, particularly in the number of recruits it attracts, the cost increase for each additional recruit—the marginal cost—tells a different story. The program with the highest total cost, HR-1071 enhanced, is actually the least expensive of the four proposed changes per additional recruit.

## REDUCING COSTS

The marginal cost, however, is still quite high under the enhanced HR-1071 relative to other recruiting tools available. To compare the marginal cost of this proposal with the cost of other resources, it was necessary to compute the present value at the enlistment point. The present value of HR-1071 enhanced is \$32,600. In contrast, recent evidence indicates that the marginal cost of enlistment bonuses, another recruiting tool, is about \$24,000, and this is considered among the most costly recruiting policies currently used. Advertising is estimated to have a marginal cost of \$8,000. The marginal cost of the College

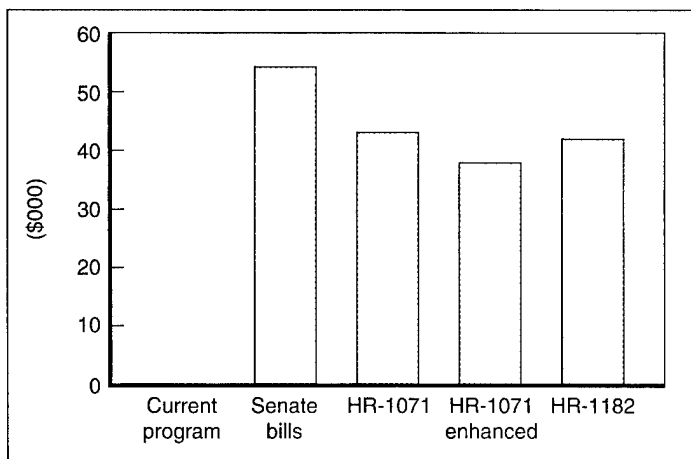


Figure 2—Cost per Additional Recruit

Fund is also low, between \$7,000 and \$12,000, reflecting that this program is only offered to some recruits in specific occupational areas. Therefore, despite the fact that HR-1071 enhanced costs less than the other proposals in terms of marginal cost, it costs substantially more than the other recruiting tactics currently in use. An obvious measure to reduce that cost would be to maintain the member contributions that are part of the current Montgomery GI Bill program. None of the proposals considered here, including HR-1071, do so.

Another option would be to enhance the educational benefits available through military service by expanding the existing college-first programs. Under this model, enlistees attend college, perhaps a two-year college, and then enlist at a higher pay grade. The college-first track is relatively small, but the Army has just announced a major test of this option. The Navy, too, is developing this track in hopes of attracting more high-quality college-bound youth. The program offers benefits to both the enlistee and the services. Those who enlist under college-first typically enter the military with higher pay, receive more on-the-job training while in the military, and exit with better prospects for the civilian labor market. For the services, college-first programs presumably appeal to the growing population of college-bound students who currently do not consider military service. College-first programs also yield more-productive (though more expensive) enlistees, and may increase reenlistment rates, because individuals do not have to leave military service to claim the benefit. Some of these benefits would be difficult to provide under any variation of the Montgomery GI Bill. Consequently, to the extent that funds for military educational programs are limited, consideration should be given to not only improving the Montgomery GI Bill, but also to developing successful college-first programs.

RAND research briefs summarize research that has been more fully documented elsewhere. This research brief describes work done in the Forces and Resources Policy Center of RAND's National Defense Research Institute; it is documented in *An Assessment of Recent Proposals to Improve the Montgomery G.I. Bill*, by Beth J. Asch, C. Christine Fair, and M. Rebecca Kilburn, DB-301-OSD/FRP, 2000, 52 pp., \$6.00, ISBN: 0-8330-2866-9, available from RAND Distribution Services (Telephone: toll free 877-584-8642; FAX: 310-451-6915; or e-mail: [order@rand.org](mailto:order@rand.org)). Abstracts of all RAND documents may be viewed on the World Wide Web (<http://www.rand.org>). Publications are distributed to the trade by NBN. RAND® is a registered trademark. RAND is a nonprofit institution that helps improve policy and decisionmaking through research and analysis; its publications do not necessarily reflect the opinions or policies of its research sponsors.

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